IN THE CLAIMS:

Claims 5 and 7 are cancelled herein. Claims 1, 3, 8, 11, 13, 14, 24, 27, 28, 31, 43, 38, 40, 41, and 44 have been amended herein. New claim 45 has been added. All of the pending claims 1 through 45 are presented below. Claims 11-26 and 31-44 have been withdrawn. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Currently Amended) A method for producing mRNA encoding a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, or a functional part thereof, ~~functional derivative thereof, functional analogue thereof, or any combination thereof,~~ in a yeast cell, said method comprising:

providing said yeast cell with a nucleic acid encoding said ectodomain or functional part thereof, ~~functional derivative thereof, functional analogue thereof, or any combination thereof,~~ wherein said nucleic acid has a sequence as depicted in FIG. 1, or wherein said nucleic acid has a sequence that comprises at least 90 percent homology to a sequence as depicted in FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid ~~being~~ is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAb 4G2.

2. (Previously Presented) The method according to claim 1, further comprising expressing said nucleic acid in said yeast cell.

3. (Currently Amended) The method according to claim 2, further comprising purifying said *Plasmodium* AMA-1 ectodomain or functional part thereof~~, functional derivative thereof, functional analogue thereof, or any combination thereof~~.

4. (Previously presented) The method according to claim 1, wherein at least one putative yeast polyadenylation consensus sequence in the nucleic acid has been modified.

5. (Cancelled)

6. (Previously Presented) The method according to claim 1, wherein said mRNA encoding *Plasmodium* AMA-1 ectodomain belongs to the clade whose members express AMA-1 protein as an approximately 83 kDa protein.

7. (Cancelled)

8. (Currently Amended) The method according to claim ~~7~~ 6, wherein the mRNA encoding *Plasmodium* AMA-1 ectodomain comprises mRNA encoding *Plasmodium falciparum* Vietnam-Oak Knoll strain ectodomain.

9. (Previously Presented) The method according to claim 1, wherein said yeast cell is *Pichia.*

10. (Previously Presented) The method according to claim 9, wherein said yeast cell is *Pichia pastoris.*

11. (Currently Amended) An isolated and/or recombinant nucleic acid sequence encoding Plasmodium ANU-1 ectodomain or a functional part~~, derivative and/or analogue~~ thereof, said nucleic acid being modified to utilize a yeast's codon usage.

12. (Withdrawn) The isolated and/or recombinant nucleic acid sequence of claim 11, wherein at least one putative yeast polyadenylation consensus sequence has been modified.

13. (Currently Amended) The isolated and/or recombinant nucleic acid sequence of claim 11, wherein at least one site in said ectodomain or functional part~~, derivative and/or~~

~~analogue~~ thereof that is generally glycosylated by eukaryotic expression systems, has been removed.

14. (Currently Amended) An isolated and/or recombinant nucleic acid sequence encoding Plasmodium AMA-1 ectodomain or a functional part~~, derivative and/or analogue~~ thereof, said nucleic acid comprising a sequence depicted in Figure 1.

15. (Withdrawn) A nucleic acid sequence, said nucleic acid sequence being an AMA-1 specific nucleic acid sequence, capable of hybridizing to at least a functional part of a nucleic acid according to claim 11.

16. (Withdrawn) The nucleic acid sequence of claim 15, wherein said hybridization is under stringent conditions.

17. (Withdrawn) A nucleic acid sequence, which is an AMA-1 specific nucleic acid sequence, said nucleic acid sequence having at least 50 percent homology to the isolated and/or recombinant nucleic acid sequence of claim 11.

18. (Withdrawn) The nucleic acid sequence of claim 17, having at least 60 percent homology to said isolated and/or recombinant nucleic acid sequence.

19. (Withdrawn) The specific nucleic acid sequence of claim 17, having at least 75 percent homology to said isolated and/or recombinant nucleic acid sequence.

20. (Withdrawn) The nucleic acid sequence of claim 17, having at least 90 percent homology to said isolated and/or recombinant nucleic acid sequence.

21. (Withdrawn) The nucleic acid sequence of claim 11, wherein said Plasmodium belongs to the clade whose members express AMA-1 protein as an approximately 83 kDa protein.

22. (Withdrawn) The nucleic acid sequence of claim 11, wherein said Plasmodium comprises Plasmodium falciparum.

23. (Withdrawn) The nucleic acid of claim 22, wherein said Plasmodium is *Plasmodium* falciparum FVO.

24. (Currently Amended) The nucleic acid sequence of claim 11, wherein said ectodomain or functional part~~, derivative and/or analogue~~ thereof comprises a consensus Plasmodium AMA-I ectodomain or a functional part~~, derivative and/or analogue~~ thereof.

25. (Withdrawn) The nucleic acid sequence of claim 11, wherein said yeast is Pichia.

26. (Withdrawn) The nucleic acid sequence of claim 25, wherein said yeast is Pichia pastoris.

27. (Currently Amended) A process for producing a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain or a functional part thereof, ~~functional derivative thereof, functional analogue thereof, or any combination thereof,~~ said method comprising:

-providing a yeast cell with an isolated or recombinant nucleic acid encoding *Plasmodium falciparum* AMA-1 ectodomain or a functional part thereof~~, functional derivative thereof, functional analog thereof, or any combination thereof,~~ wherein said nucleic acid has a sequence as depicted in FIG. 1, or wherein said nucleic acid has a sequence that comprises at least 90 percent homology to a sequence as depicted in FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid ~~being~~ is modified to utilize a yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAb 4G2; and

-collecting formed *Plasmodium* <u>*falciparum*</u> AMA-1 ectodomain or functional part thereof~~, functional derivative thereof, functional analogue thereof, or any combination thereof.~~

28. (Currently Amended) The process of claim 27, further comprising purifying said formed *Plasmodium* AMA-1 ectodomain or functional part thereof~~, functional derivative thereof, functional analogue thereof, or any combination thereof~~.

29. (Previously Presented) The process of claim 27, wherein said yeast cell is *Pichia.*

30. (Previously Presented) The process of claim 29, wherein said yeast cell is *Pichia pastoris.*

31. (Currently Amended) A Plasmodium AMA-1 ectodomain or a functional part, ~~derivative and/or analogue~~ thereof, obtainable by a process of claim 27.

32. (Withdrawn) An isolated cell comprising the nucleic acid of claim 11.

33. (Withdrawn) The isolated cell of claim 32, further comprising a Plasmodium AMA-1 ectodomain or a functional part, derivative and/or analogue thereof.

34. (Currently Amended) A vaccine comprising the Plasmodium AMA-1 ectodomain or functional part~~, derivative and/or analogue~~ thereof of claim 31.

35. (Withdrawn) The vaccine of claim 34 for use in preventing malaria.

36. (Withdrawn) The vaccine of claim 34 together with a suitable expedient.

37. (Withdrawn) The vaccine of claim 35, wherein said malaria is caused by Plasmodium falciparum.

38. (Currently Amended) The vaccine of claim 34, wherein said Plasmodium AAIA-1 ectodomain or functional part~~, derivative and/or analogue~~ thereof is linked to C3d.

39. (Withdrawn) The vaccine of claim 34, wherein the malaria comprises Plasmodium falciparum FVO.

40. (Currently Amended) A vaccine comprising a proteinaceous molecule capable of binding a Plasmodium AMA -1 ectodomain or a functional part~~, derivative and/or analogue~~ thereof.

41. (Currently Amended) A method of diagnosing a disease state in a subject, said method comprising using Plasmodium AMA-1 ectodomain or functional part~~, derivative and/or analogue~~ thereof of claim 31 to diagnosing the disease state.

42. (Withdrawn) A method for, at least in part, providing prophylaxis against malaria, said method comprising administering the vaccine of claim 34 to a subject.

43. (Withdrawn) The method of claim 42, comprising administering to a subject slow release compositions comprising said vaccine.

44. (Currently Amended) A method for, at least in part, diagnosing malaria, said method comprising:

collecting a sample from an individual and

providing Plasmodium AMA-1 ectodomain or functional part~~, derivative and/or analogue~~ thereof according to claim 31 with at least part of said sample.

45. (New) A method for producing mRNA encoding a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, or a functional part thereof, in a yeast cell, said method comprising:

providing said yeast cell with a means encoding said ectodomain or functional part thereof, wherein said means is modified to utilize said yeast cell's codon usage, and wherein said ectodomain encoded by said means exhibits specificity for mAb 4G2.